THINK PIECE

# Current CCS Regulation in Norway

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## Introduction

Carbon capture and storage (CCS) on the continental shelf is a new kind of activity which raises several new legal questions. One aspect of CCS that complicates its regulation is the fact that it is covered or will be covered by several legal regimes: international conventions, EU law and national regulations.

The subject for this piece is the current position of Norwegian regulation of $CO_2$ storage from Norwegian sources on the Norwegian continental shelf. The most relevant national acts are the 1981 Pollution Control Act, the 1996 Petroleum Act and the 2004 Norwegian Greenhouse Gas Emission Trading Act.

## CCS under the Pollution Control Act

The Pollution Control Act regulates emissions both at land and at sea within the economic zone. Large $CO_2$ emissions from industrial plants are considered to be pollution under the Norwegian Pollution Control Act, and as a general rule are prohibited. A company whose undertakings will result in large emissions must obtain an emissions permit pursuant to the Pollution Control Act and fulfil the formal terms of that permit. The Norwegian Pollution Control Authority may set conditions to reduce or prevent emissions. For example, a condition in the permit for the new gas-fired power plant at Mongstad is that CCS technology be incorporated from the year 2014.

An emissions permit does not include the transport, deposition and storage of $CO_2$. This requires a specific permit. Because of the risks of leakage, the deposition and storage of $CO_2$ is considered pollution and requires a permit under the Norwegian Pollution Control Act. The Sleipner-project for demonstrating storage of $CO_2$ in geological offshore reservoirs, was granted such a permit by the Norwegian Pollution Control Authority after they had received an account of the environmental aspects of the project.

There is clearly a need for dedicated legislation on the disposal and storage of $CO_2$. It would also be advisable to implement a permit system, under which the authorities can set conditions and secure the safe handling of $CO_2$, as well as to regulate the responsibility concerning inspection, supervision, leakage etc. Whether it should be regulated under a separate act or existing legislation is a matter to be discussed.

## CCS under the Petroleum Act

The Norwegian state is the owner of the deposits of oil in the Norwegian territorial seas and has exclusive right over the administration of the natural resources. CCS as part of petroleum activities, whether for the purpose of EOR (enhanced oil recovery) or permanent storage on the continental shelf, is regulated by permit under the Petroleum Act.

## CCS under the Norwegian Greenhouse Gas Emission Trading Act

Industrial activities included in the Norwegian Greenhouse Gas Emission Trading Act have to submit quotas equivalent to their emissions.

An important question is what happens when a power plant is connected to a CCS installation and how this would be regulated under the Norwegian Greenhouse Gas Emission Trading Act (and the EU ETS). $CO_2$-emissions will be reduced, but since they do not completely disappear the plant must submit quotas for the remaining emissions. $CO_2$ that has been stored will be defined as non-emitted.

$CO_2$ may leak during capture, transport or storage and at present the responsibility for leakages is not satisfactorily regulated under Norwegian law. According to the Pollution Control Act, the owner of the CCS installation would primarily be responsible for leakages. On the other hand, it seems

the system found in the Emission Trading Act places the responsibility for the leakage upon those who are obliged to submit quotas for emissions.stallations that form part of the chain. (ii) The alternative is to include each link of the chain in the emission trading system. This would oblige the owner of, for example, the transportation pipes, to submit quotas for any leakages from the pipes. The latter solution gives most flexibility and initiative for security measures, but as yet the answer has not been given.

## Conclusion

As the Norwegian rules were not written with CCS in mind they do not solve all the legal questions adequately. There is a need for further legislation, for example concerning responsibility for leakages, clarification of the permit system and usage of the territorial sea for CCS not part of petroleum activities.

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